

# PRODUCT INFORMATION PACKET



Model No: LM30096  
Catalog No: LM30096  
20 HP Elevator Duty Motor, 3 phase, 3600 RPM, 230/460 V, 254T Frame, ODP  
Elevator Duty Motors



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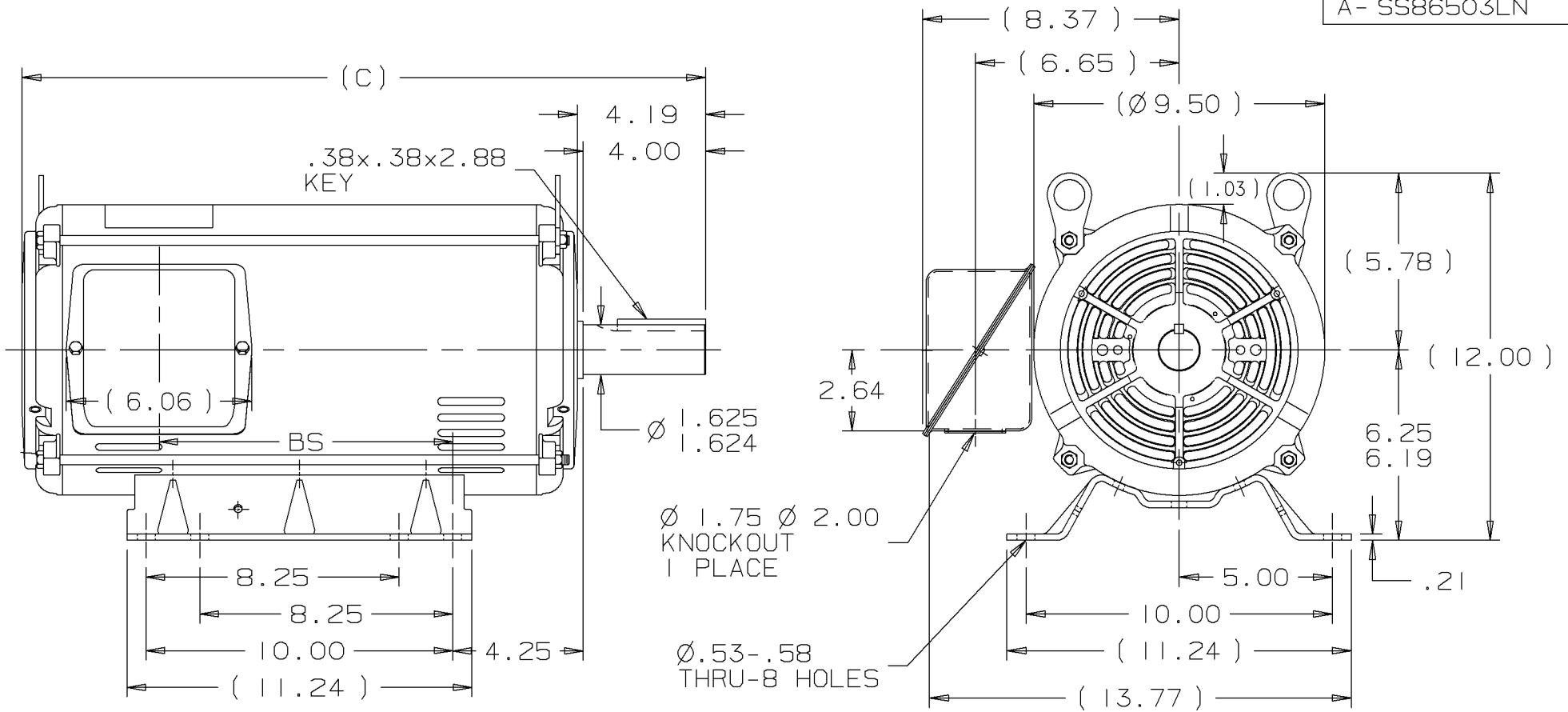
### Nameplate Specifications

|                        |                    |                            |            |
|------------------------|--------------------|----------------------------|------------|
| Output HP              | 20 Hp              | Output KW                  | 14.9 kW    |
| Frequency              | 60 Hz              | Voltage                    | 230/460 V  |
| Current                | 46.0/23.1 A        | Speed                      | 3520 rpm   |
| Service Factor         | 1                  | Phase                      | 3          |
| Efficiency             | 91 %               | Power Factor               | 88.6       |
| Duty                   | 120/80 Starts/Hour | Insulation Class           | F          |
| Design Code            | B                  | KVA Code                   | E          |
| Frame                  | 254T               | Enclosure                  | Drip Proof |
| Thermal Protection     | No                 | Ambient Temperature        | 40 °C      |
| Drive End Bearing Size | 6309               | Opp Drive End Bearing Size | 6208       |
| UL                     | Recognized         | CSA                        | Y          |
| CE                     | Y                  | IP Code                    | 12         |
| Number of Speeds       | 1                  |                            |            |

### Technical Specifications

|                       |                             |                       |                     |
|-----------------------|-----------------------------|-----------------------|---------------------|
| Electrical Type       | Squirrel Cage Induction Run | Starting Method       | Wye Start Delta Run |
| Poles                 | 2                           | Rotation              | Reversible          |
| Resistance Main       | .485 Ohms                   | Mounting              | Rigid Base          |
| Motor Orientation     | Horizontal                  | Drive End Bearing     | Ball                |
| Opp Drive End Bearing | Ball                        | Frame Material        | Rolled Steel        |
| Shaft Type            | T                           | Overall Length        | 20.57 in            |
| Frame Length          | 13.70 in                    | Shaft Diameter        | 1.625 in            |
| Shaft Extension       | 4 in                        | Assembly/Box Mounting | F1/F2 CAPABLE       |
| Connection Drawing    | EE7358-LN                   | Outline Drawing       | SS86503LN-1370      |

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| DASH | FR.       | C     | BS   | MOUNTING |
|------|-----------|-------|------|----------|
| 1370 | 254T      | 20.57 | 7.68 | F1 OR F2 |
| 1545 | 254T/256T | 22.32 | 9.43 | F1 OR F2 |

NOTES:

1. NAMEPLATE TO BE READ FROM C'BOX SIDE OF MOTOR.
2. BOX CAN BE MOUNTED IN 90° STEPS.
3. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°. (EXCEPT AS NOTED.)
4. F2 MOUNT -USES 2ND HOLE ON 1370 FRAME.

|     |            |                         |          |      |  |   |                         |
|-----|------------|-------------------------|----------|------|--|---|-------------------------|
|     |            |                         |          |      |  | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOL. ON XX±.02 XXX±.005 XXXX±.0005 ANGLES± 7'30" |                         |
| 2   | 01-31-2000 | UPDATED CONDUIT BOX PER | CN 28427 | TJB  | MAX. SURFACE ROUGHNESS<br>UNLESS OTHERWISE NOTED |   | DRAWN BY TRB 07-20-1999 |
|     |            |                         |          |      | FINISH   |   | CHKD BY ML 07-20-1999   |
| 1   | 07-20-1999 | NEW DRAWING             |          | TRB  | MATERIAL   |   | APPD BY GK 07-20-1999   |
| REV | DATE       | CHANGE                  |          | NAME | PART NAME OUTLINE                                |   | DRWG NO                 |
|     |            |                         |          |      | 250 FR. - BB - DR.PR.                            |   | A-SS86503LN             |



ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--

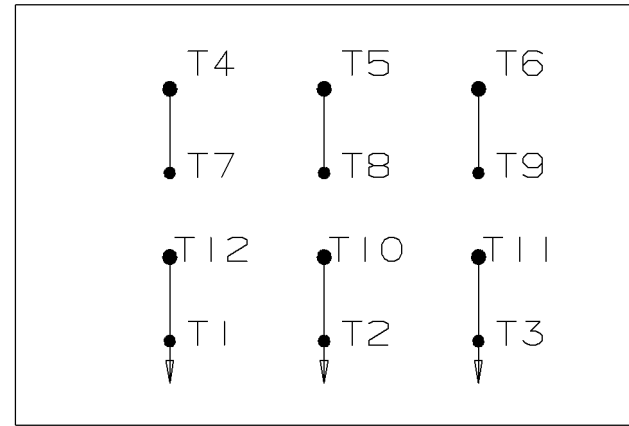
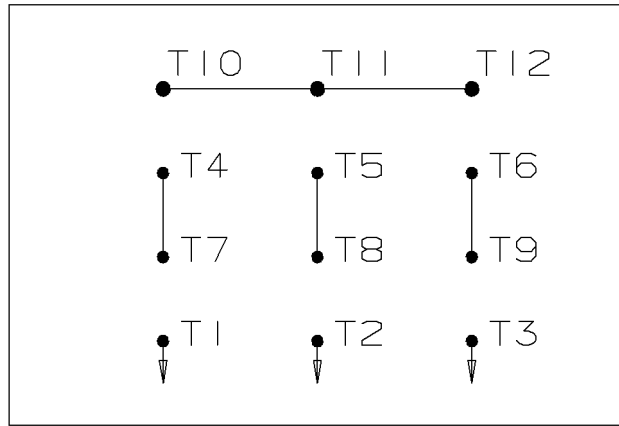
STACK:

/RS  
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WYE START

HIGH VOLTAGE

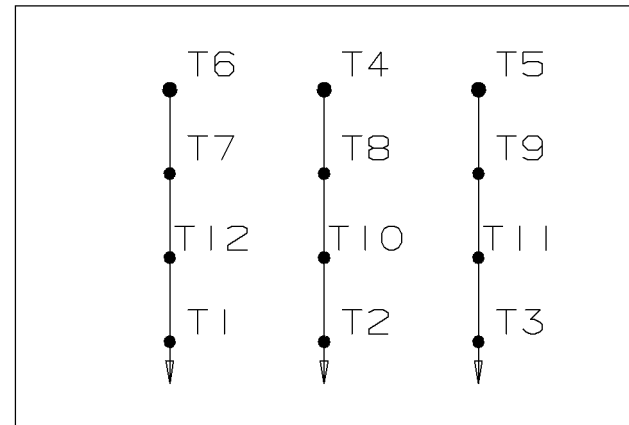
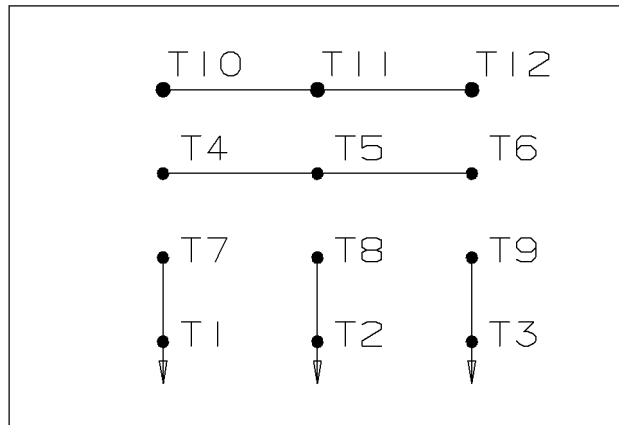
DELTA RUN



WYE START

LOW VOLTAGE

DELTA RUN



4/2 CKTY Δ

|     |      |        |      |  |   |  |                         |            |
|-----|------|--------|------|--|---|--|-------------------------|------------|
|     |      |        |      |  | <input checked="" type="checkbox"/> UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOL. ON XX± .02    XXX± .005    XXXX± .0005    ANGLES± 7'30" |  |                         |            |
|     |      |        |      |  |   | MAX. SURFACE ROUGHNESS<br>UNLESS OTHERWISE NOTED | DRAWN BY DRS            | 12-07-1999 |
|     |      |        |      | FINISH   |   | CHKD BY ML                                       | 12-07-1999              |            |
|     |      |        |      | MATERIAL   |   | APPD BY TB                                       | 12-07-1999              |            |
| REV | DATE | CHANGE | NAME | PART NAME CONNECTION DIAGRAM   |   |  | DRWG NO<br>A- EE7358-LN |            |

|           |               |           |
|-----------|---------------|-----------|
| PURCHASED | CADD FILE NO. | EE7358-LN |
|-----------|---------------|-----------|

Data Sheet

Date: 1/30/2018

LM30096



Data @ **460 V**

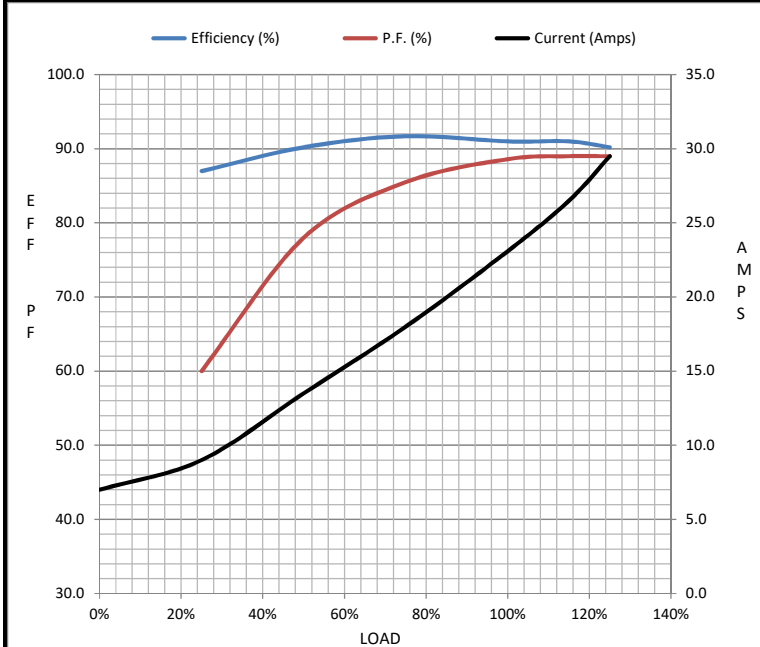
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 7.0  | 9.0  | 13.5 | 18.0 | 23.1 | 26.5  | 29.5 | 144  |
| Torque (ft-lb) | 0.00 | 7.5  | 15.0 | 22.2 | 30.0 | 34.5  | 37.5 | 52.5 |
| RPM            | 3600 | 3580 | 3565 | 3545 | 3520 | 3,515 | 3490 | 0    |
| Efficiency (%) |      | 87.0 | 90.2 | 91.7 | 91.0 | 91.0  | 90.2 |      |
| P.F. (%)       | 9.0  | 60.0 | 78.0 | 85.5 | 88.6 | 89.0  | 89.0 | 40.0 |

Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 1800    | 3050 | 3520  | 3600 |
| Current (Amps) | 144  | 130     | 90.0 | 23.1  | 7.0  |
| Torque (ft-lb) | 52.5 | 48.0    | 86.5 | 30.0  | 0.00 |

| Information Block           |                         |        |        |         |
|-----------------------------|-------------------------|--------|--------|---------|
| HP                          | 20.0                    |        |        |         |
| Sync. RPM                   | 3600                    |        |        |         |
| Frame                       | 254                     |        |        |         |
| Enclosure                   | DP                      |        |        |         |
| Construction                | TDX                     |        |        |         |
| Voltage                     | 230/460#230/460 V       |        |        |         |
| Frequency                   | 60 Hz                   |        |        |         |
| Design                      | A                       |        |        |         |
| LR Code letter              | F                       |        |        |         |
| Service Factor              | 1.15                    |        |        |         |
| Temp Rise @ FL              | 45 °C                   |        |        |         |
| Duty                        | 60 MIN                  |        |        |         |
| Ambient                     | 40 °C                   |        |        |         |
| Elevation                   | 1,000 feet              |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 0.65 Lb-Ft <sup>2</sup> |        |        |         |
| Ref Wdg                     | K2152191 R3             |        |        |         |
| Sound Pressure @ 1M         | 78 dBA                  |        |        |         |
| VFD Rating                  | NONE                    |        |        |         |
| Outline Dwg                 | A-SS86503LN-1370        |        |        |         |
| Conn. Diag                  | A-EE7358-LN             |        |        |         |
| Additional Specifications:  |                         |        |        |         |
| 0                           |                         |        |        |         |
| 0                           |                         |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |         |
| R1                          | R2                      | X1     | X2     | Xm      |
| 0.2880                      | 0.2300                  | 1.0850 | 1.1460 | 35.0740 |



Speed - Torque Curve

